



Rio Digital Audio Receiver User Guide

About the User Guide

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Navigating and printing the Rio Receiver User Guide

The online Rio Receiver User Guide is in Adobe Acrobat (.PDF) file format.

NOTE: We strongly recommend that you use **Adobe Acrobat version 4.0** — available on the **CD-ROM** — to view and print the **Rio Receiver User Guide**.

Click [links](#) (blue underlined text) to jump to another location in the document or to a location on the World Wide Web.

Acrobat Toolbar icons



Click the Show/Hide Navigation Pane icon in the Acrobat toolbar to show the Navigation Pane Window and bookmarks in the left column. Bookmarks are links to the contents of the User Guide. Click any bookmark in the list to jump to the page in the User Guide that contains the topic.



Click the Print icon in the Acrobat toolbar to print the User Guide. The size of the User Guide is optimized for printing—to save trees.



Copyright and trademark

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Copyright and trademark

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Parts of the software provided with the Rio Receiver™ are covered by the GNU General at www.gnu.org. Under the terms of the license we are required to provide the source code for these components. Source code is provided on CD-ROM in addition to the standard locations.

All other product names may be trademarks of the companies with which they are associated.

First Edition, December, 2000.

Part Number 75550124-002





Introduction

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Introduction

Congratulations on purchasing the Rio Digital Audio Receiver, the simple solution to turning your personal computer into your personal digital audio jukebox. The Rio Receiver streams music from your PC to any room in your house by simply plugging into an available phone jack. It works with your existing speakers and uses your home's existing phone lines to transfer MP3 or WMA music files and playlists anywhere in your house. Download music from the Internet onto your PC, create Playlists of your favorite CDs, and enjoy them with your Rio Receiver.



Package Contents

- Rio Digital Audio Receiver with power cord
- Rio Digital Audio Connector (optional)
- Rio Digital Audio Remote
- 15' standard phone cord
- 6' standard phone cord
- 6' RCA cable
- Rio Receiver Installation CD
 - Audio Receiver Manager software
 - Online manual
 - Adobe Acrobat

System Requirements

- Intel ® Pentium ® 200 MHz MMX or higher CPU
- 32MB RAM
- 16MB free hard drive space
- CD-ROM drive
- PNA networking or Ethernet networking for PC
- Windows 98, 98SE, 2000, Millennium



Safety Information

This product was designed to meet the requirements applicable to the following Directives:

- Low Voltage Directive (72/23/EEC) as modified by amending Directive (93/68/EEC) thereby covering the standards of IEC 950 / EN60905 2nd Edition, 1991+Amd.1, 1992+Amd.2, 1993+Amd.3, 1995+Amd.4, 1996. *Safety of Information Technology Equipment*
- EMC Directive (89/336/EEC) as modified by amending Directive (93/68/EEC) EN55022: A2;1997, EN50082-1: 1992 *Radio Interference and Generic Immunity*

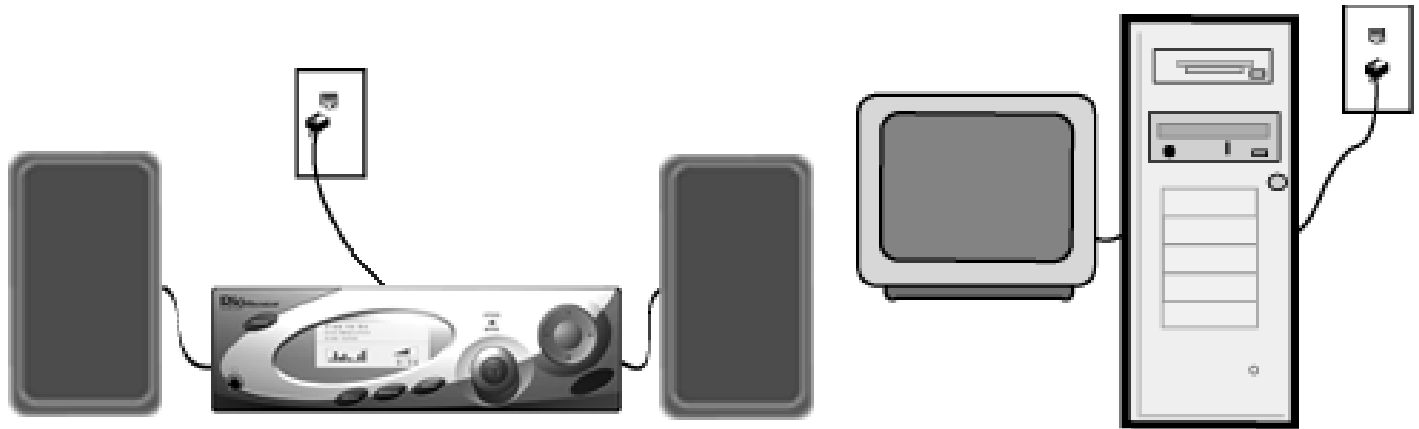
! IMPORTANT SAFETY INSTRUCTIONS

- No Data transmission cables should be connected or disconnected during a thunderstorm.
- Do not open the housing of this product when it is connected to the PSTN, Communication Networks, and/or Local power.
- Use this device only in environments where temperatures don't exceed 95°F.
- Always ensure proper ventilation is possible during use.

CAUTION: To reduce the risk of fire, use only No. 26 AWG (standard phone cord) or larger telecommunication line cord.

Attention courant dangereux à l'intérieur, mettre l'appareil hors tension, déconnecter ethernet et débrancher la ligne téléphonique avant de retirer le couvercle de l'appareil.

Aucun service après-vente pour les pièces détachées à l'intérieur.



Getting Started

You will need the following items in order to install your new Rio Digital Audio Receiver:

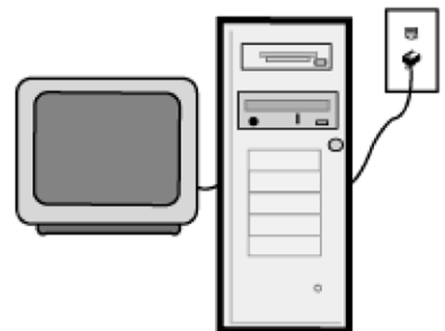
- The Rio Digital Audio Receiver
- The Rio Digital Audio Connector (Optional: If you do not have an existing Home PNA or Ethernet network.)
- 2 Phone cords or Ethernet cable
- Speakers
- 6' RCA cable (Optional: If you choose to plug the Rio Receiver into your home theater system.)
- The Rio Receiver Installation CD
- Your Windows Operating System Installation or Recovery CD

Installation

NOTE: If adding the Rio Receiver to an existing [Home PNA](#) or [Ethernet network](#), skip [The Rio Digital Audio Connector](#) section. Go to [The Audio Receiver Manager Software](#) section instead.

The Rio Digital Audio Connector

1. Remove the computer case and insert the Rio Connector into an available [PCI slot](#). The PCI slots are the white slots at the back of your computer case and they require that you screw the bracket into the computer frame. Make certain the Rio Connector is firmly seated in the PCI slot before replacing the cover on the PC.
2. Plug the included 6' phone cord into the Rio Connector port marked **Line** and into the nearest phone jack. This allows you to use your home phonelines as a network between your PC and your Rio Receiver.
3. Turn on your PC and start Windows. Windows will display a **New Hardware Found** screen and notify you that it has found the Rio Connector.
4. If prompted, place the Rio Receiver Installation CD in the CD-ROM drive and click **Next**. This will prompt Windows to select the Rio Connector's driver from the CD.






NOTE: You should keep your **Windows Installation or Recovery CD** handy as you may be prompted to load drivers from it.

5. Windows will finish installing the Rio Connector.

The Audio Receiver Manager Software

NOTE: (For pre-existing Home PNA or Ethernet networks only.) Before installing the **Audio Receiver Manager** software, it is required that all **HPNA or Ethernet** network connections be made and working correctly so that the **Audio Receiver Manager** software can properly configure the **Rio Receiver's** network connection. See the **HPNA or Ethernet hardware manufacturer's** documentation for instructions on how to install and configure your network.

1. Insert the Rio Receiver Installation CD in the CD-ROM drive.
2. When the Rio Receiver splash screen appears, click the **Software Installation** button.
(If it does not automatically run, click the **Start** button in the bottom left corner of the desktop and then **Run**. Type in *D:\Setup.exe* and click **OK**. If your CD-ROM drive is a letter other than D, replace D with that letter.)
3. Click the **Rio Software** button. The **Installation Wizard** screen will appear.
4. Click **Next**.
You will be prompted to read through the Audio Receiver Manager software license agreement
5. Click **Yes**.
When you are prompted to select the destination folder for the program, we recommend leaving it at the default folder (*c:\Program Files\Audio Receiver*), but you can change the destination folder by clicking the **Browse** button and pointing the installation program to your preferred destination.
6. Click **Next** and then click **Finish**.

The Audio Receiver Manager will place a red musical note icon  in the PC's system tray in the right bottom corner of the desktop and then prompt you with the following message.



7. Click **OK**. The **Select Music Locations** screen will come on with a list of the hard drives located on your computer.

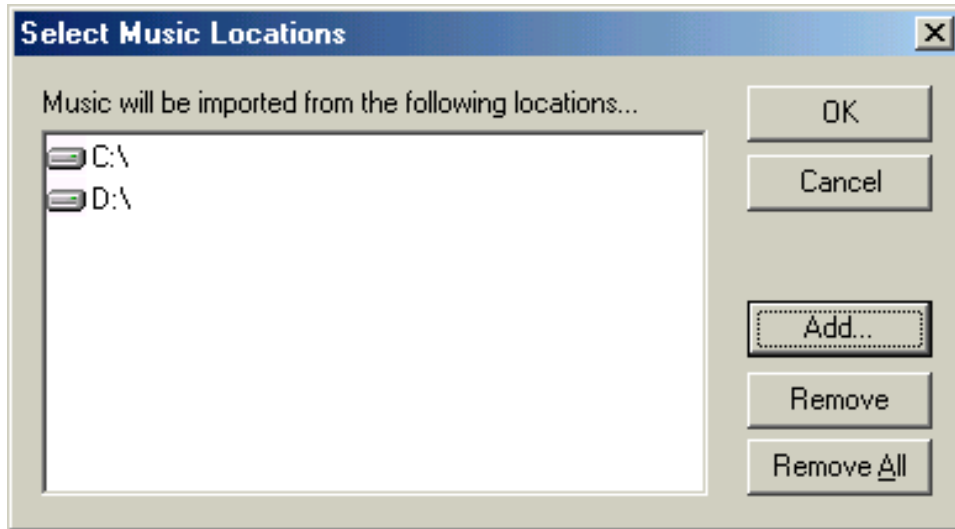


Installation

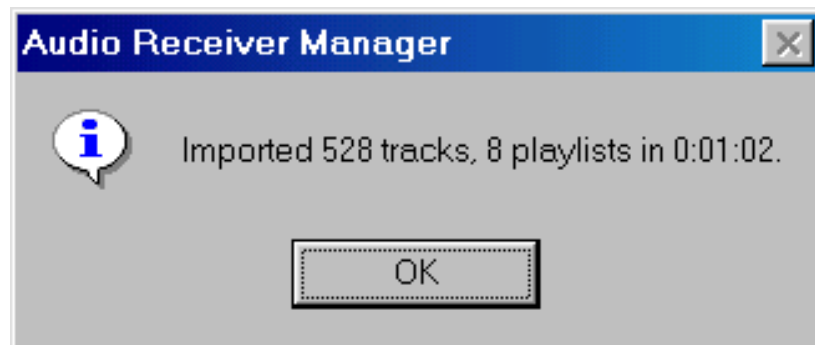
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- Click **OK** and let the Audio Receiver Manager search all of the hard drives, folders, and files on your computer for your digital music files or select the specific hard drives and/or folders that you want the Audio Receiver Manager to search.



Use **Add**, **Remove**, and **Remove All** to adjust where the Audio Receiver Manager searches for your music and click OK to start the search. When it finishes searching for music, the Audio Receiver Manager displays the following message with the number of tracks and playlists that it located if any exist:



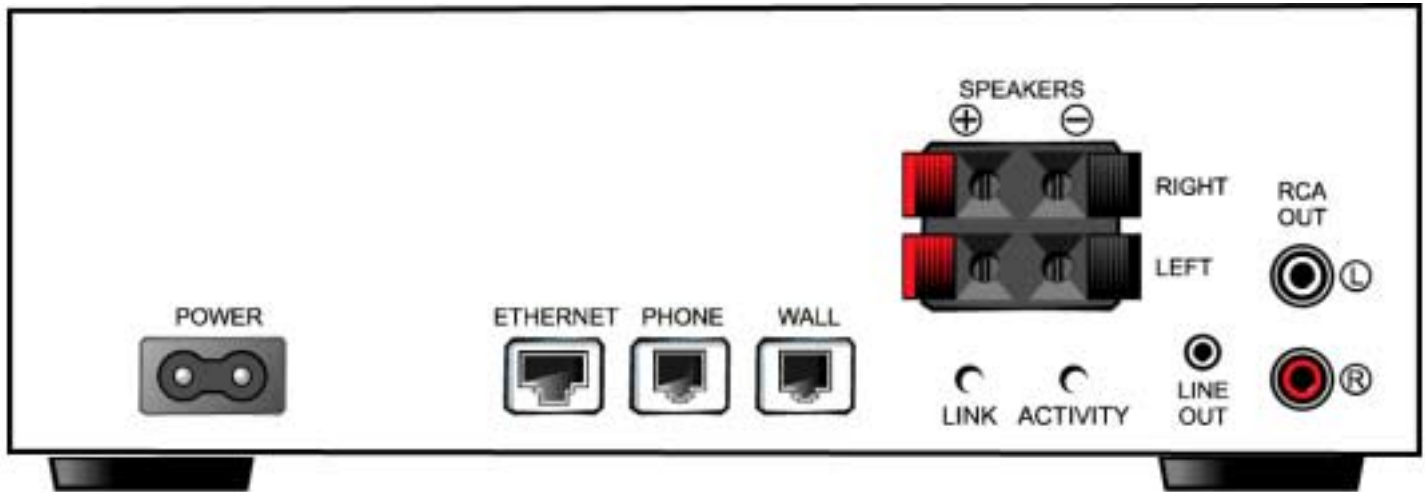
- Click **OK** to close the program.

The Audio Receiver Manager software will display a blue musical note, , in the computer's System Tray at the bottom of the screen when the network connection has been made between your server computer and the Rio Receiver.

A red musical note will appear in the System Tray if no connection is made.



The Rio Digital Audio Receiver



- I. Connect the Rio Receiver to your network.
 - a.) **Home PNA Network.** In the room where you are going to station the Rio Receiver (i.e. your living room, bedroom, or kitchen) plug one end of the included 15' phone cord into the nearest phone jack and the other end into the back of the Rio Receiver in the port marked **"Wall"**. This allows your Rio Receiver and your computer to communicate via your home phone lines.

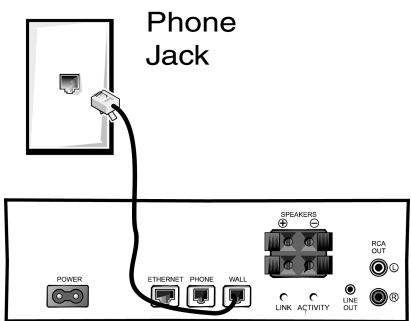
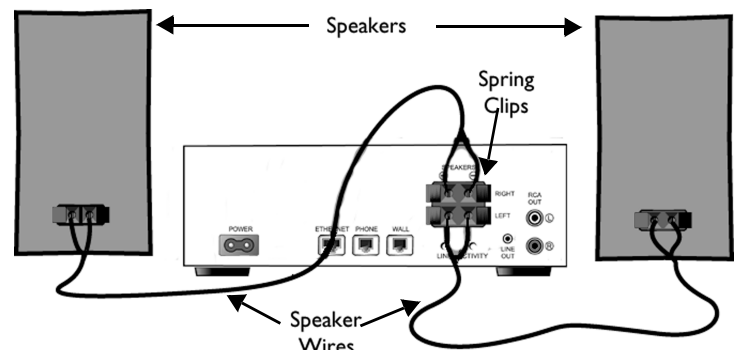
WARNING: If your residence uses different phone numbers on different phone jacks, both the Rio Receiver and the Home PNA card installed in the computer must be plugged into the same phone number in order to connect. You can check this by plugging phones into both jacks to see if you can communicate over the single line.

NOTE: You can plug your phone, answering machine, fax, or satellite dish into the port marked **"Phone"** to continue using that phone jack with your other devices.

OR

- b.) **Ethernet Network.** Plug one end of an Ethernet cable into the back of the Rio Receiver in the port marked **"Ethernet"** and the other end into your network hub.
2. Connect the Rio Receiver to your speakers or to your home theater system.

- a.) If you are going to use your Rio Receiver as a stand alone unit you will need to connect powered or bookend speakers to it to hear your music. Connect the speaker wires from your left speaker to the red and black spring clips marked **"Left"** on the back of the Rio Receiver. Connect the speaker wires from your right speaker to the red and black spring clips marked **"Right"** on the Rio Receiver. The Rio Receiver and its remote will now control the volume levels of the speakers.





Installation

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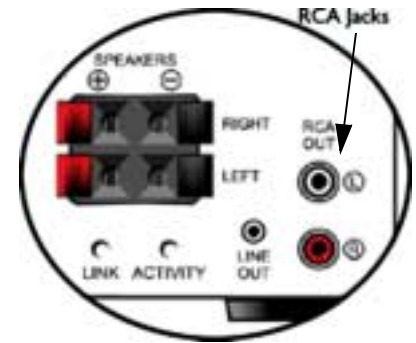
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NOTE: It is also possible to plug powered speakers into the Line Out jack located on the back of the Digital Audio Receiver.

OR

b.) If connecting the Rio Receiver to your home theater system, use the included RCA cable, which has a red and a white RCA connector at each end. Plug the red RCA connector to the red jack and the white RCA connector to the white jack on your stereo receiver. Plug the other end's red RCA connector to the red jack and the white RCA connector to the white jack on the Rio Receiver.

NOTE: When used with a stereo receiver, neither the Rio Receiver nor its remote control the volume level as the speakers are plugged into the stereo receiver.



3. Plug the Rio Receiver power cord into the back of the Rio Receiver and into nearest power supply.
4. Push the **Power** button on the Rio Receiver or on the remote. The Rio Receiver's liquid crystal display (LCD) will display:



The Rio Receiver locates the server PC and the database of music files stored on that PC. If the Rio Receiver does not find your PC, check the [Troubleshooting and FAQ](#) sections of the manual for tips to correct this.

5. When it has finished querying your PC, the Rio Receiver will display the first song in the digital music file database on your PC. It is now ready to bring your music to you.

Song Title		Artist
Artist		
Album		
128 K	MP3	Random
		0:21



Using Your Rio Receiver

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Using Your Rio Receiver

The Display

When powered on, the Rio Receiver's Liquid Crystal Display or LCD is backlit for easier viewing. It displays the status of the unit, as well as the Playlist, Artist, and Song information for the music you are playing. The LCD will assist you in selecting new music to listen to.

In playback mode, the LCD shows:

- **Track Information** — The Song title, Album title, Artist name, bit rate of encoding, and the total time of the song are encoded in the digital music file in the [ID3 Tag](#) and read by [Gracenote](#) and the Rio Receiver.
- **Bit Rate Indicator** — The amount of compression used to encode the song.
- **Track Time** — Time remaining/time elapsed in the song.
- **Repeat Indicator** — Shows if a song is set to repeat, if all songs are set to repeat or if no songs are set to repeat.
- **Random Indicator** — Shows if the Receiver is set to shuffle the songs in play.

Song Title			Artist
Artist			
Album			
128 K	MP3	Random	0:21

Menus and Buttons

The buttons on the face of the Rio Receiver include:

- Power
- Repeat
- Random
- Volume Select
- Menu
- Joypad (Play/Pause, Fast Forward, Rewind, Stop)



Using the Repeat and Random buttons

Pressing the Repeat button:

1. Once repeats all of the songs in selected play location.
2. Twice repeats the song currently playing.
3. Three times turns off the feature.

Pressing the Random button:

1. Once shuffles the songs in the selected play location.
2. Twice turns off the feature.



Using the Volume Select in Normal and Menu Modes

In **Normal Mode** the Volume Select on the Rio Receiver adjusts the Audio Settings:

- Volume
- Balance
- Bass
- Treble

When the Menu button is pressed, the Rio Receiver is in **Menu Mode** and the Volume Select can:

- Select Playlists.
- Choose music by Artist.
- Choose music by Genre.
- Choose music by Album.
- Select individual songs by Title.
- Adjust Audio Settings.
- Adjust Display Settings.



Adjust Audio Settings in Normal Mode

- Turning the **Volume Select** to the right will increase the volume level, while turning it to the left decreases the volume level.
- To adjust the Balance of the Receiver's music output through your speakers, press the **Volume Select** twice and then turn it to the left or right to adjust the balance levels accordingly.
- To adjust the Bass level, press the **Volume Select** again and then turn it to the left or right to raise or lower the Bass level accordingly.
- To adjust the Treble level, press the **Volume Select** again and then turn it to the left or right to raise or lower the Treble level accordingly.

Adjust Audio Settings in Menu Mode

1. Press the **Menu** button to access the Menu Options screen.
2. Highlight **Change Audio Settings**.
3. Press the **Volume Select** to enter that choice.
4. Scroll through the options (Volume, Balance, Bass, Treble) and highlight the setting you wish to alter. Press the **Volume Select** to enter that choice.
5. Turn the **Volume Select** left or right to adjust the settings to meet your preferences.
6. Press the **Menu** button again to exit Menu Mode.



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Choose Music in Menu Mode

To Select Existing Playlists:

1. Press the **Menu** button to access the **Menu Options** screen.
2. Turn the **Volume Select** left or right to scroll through the options.
3. Highlight **Select Music** and press the **Volume Select** to choose that option.
4. On the **Select Music** screen highlight **Playlist** and press the **Volume Select** to choose that option.
5. Scroll through the playlists, which are listed alphabetically, on the **Playlists** menu until you highlight the desired playlist.
6. Highlight **Play All Music** and press the **Volume Select** to play all of the songs in that playlist.

NOTE: Pressing the **Random** button will cause the **Rio Receiver** to shuffle all of the songs in the playlist.

Menu Options
Select Music About Receiver Change Audio Settings Change Display

Select Music
Artist Album Genre Title Playlist

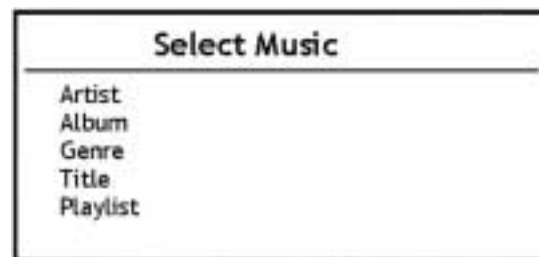
Playlists
Play All Music Playlist 1 Playlist 2 Playlist 3 Playlist 4

Coolest disco tracks
Play All Music Song Title #1 Song Title #2 Song Title #3 Song Title #4

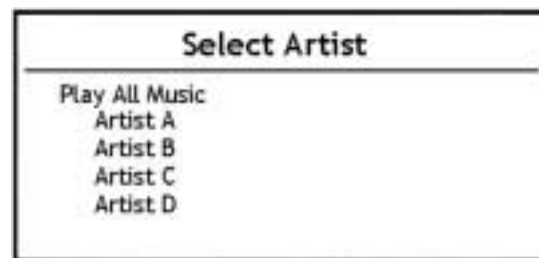


To Select Individual Songs:

1. Press the **Menu** button to access the music menus.
2. Turn the **Volume Select** left or right to scroll through the menus.
3. Highlight **Select Music** and press the **Volume Select** to choose that option.
4. On the **Select Music** screen scroll through the options and choose whether you want to sort music by Artist, Album, Genre, Title or Playlist by highlighting your choice and pressing the Volume Select. For example: Highlight **Artist** and press the **Volume Select**.



5. On the **Select Artist** screen select which artist you want to listen to from the alphabetical list of artist names by highlighting your choice and pressing the **Volume Select**.



6. The screen title will be that of the Artist you chose. Scroll through the list of songs, provided in alphabetical order, by that artist and highlight the song you want to play. Press the **Volume Select** to play that song.



The Joypad Controls

Play/Pause (▶) — Press once to play the first song in the current selection.

Pressing the Play/Pause button while a song is playing will pause the song and the song title in the display will blink to indicate that it is in Pause mode.

Fast Forward (⏭) — Press once to skip to the next track or hold it down to Fast Forward through the track you are currently listening to.

Rewind (⏮) — Press once to return to a previous track or hold it down to Fast Rewind through the track you are currently listening to.

Stop (■) — Press once to stop. This resets the Rio Receiver back to the beginning of the current track.





The Rio Remote

Power — Turn the Rio Receiver on and off.

Menu — Press once to access the control menus.

Volume — Press up to increase and down to decrease the speaker volume.

Select — Scroll through the menus on the LCD by pressing the up and down arrow buttons.

Enter — Press once to enter in your choices.

Cancel — Press once to cancel the current mode the Rio Receiver is in.

Random — Press once to shuffle songs in selected play location. Press again to turn off this feature.

Repeat — Press once to repeat all of the songs or twice to repeat the song currently playing. Press again to turn off this feature.

[List](#) — Create and recall playlists on the Rio Receiver using the Alphanumeric Numbers.

[Search](#) — Press to search for an album, artist, genre, song title or playlist using the Alphanumeric Numbers.

Alphanumeric Numbers — Use these numbered and lettered buttons with the Search and List features to find selections by their title or number.

Play/Pause (II ▶) — Press once to play a song. Pressing the Play button when a song is in play will pause the song and cause the title to flash.

Fast Forward (▶▶) — Press once to skip to next track or hold it down to fast forward through the current track.

Rewind (◀◀) — Press once to return to previous track or hold it down to rewind through the current track.

Stop (■) — Press once to stop the current song.

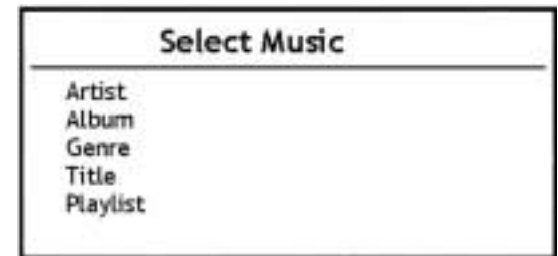
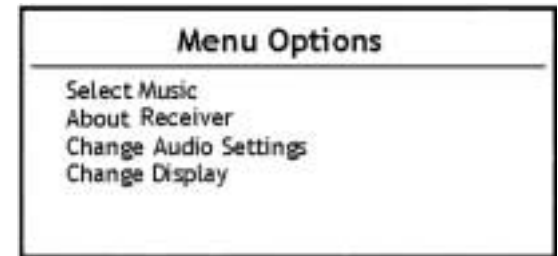




To Select Playlists with the Rio Remote:

1. Press the **Menu** button to access **Menu Options** on the Rio Receiver's LCD.
2. Press the **Select** button up or down to scroll through and highlight options.
3. Highlight **Select Music** and press **Enter**.
4. On the **Select Music** screen highlight **Playlist** and press **Enter**.
5. On the **Playlists** screen scroll through the playlists, which are listed in alphabetical order, with the **Select** button and highlight the desired playlist. Press **Enter**.
6. Highlight **Play All Music** and press **Play** to play the songs in that playlist.

NOTE: Pressing **Random** will cause the **Digital Audio Receiver** to shuffle all of the songs in the playlist.





To Select Individual Songs with the Remote:

1. Press the **Menu** button to access **Menu Options** on the Rio Receiver's LCD.
2. Press the **Select** button up or down to scroll through and highlight options.
3. Highlight **Select Music** and press **Enter**.
4. On the **Select Music** screen highlight **Artist** and press **Enter**.
5. On the **Select Artist** screen scroll through the alphabetical list of artists with the **Select** button and highlight the desired artist name. Press **Enter**.
6. Highlight **Play All Music** and press **Play** to play all of the songs by that artist or highlight an individual song and press **Play** to play only that song.

Menu Options
Select Music About Receiver Change Audio Settings Change Display

Select Music
Artist Album Genre Title Playlist

Select Artist
Play All Music Artist A Artist B Artist C Artist D

Artist
Play All Music Song Title #1 Song Title #2 Song Title #3 Song Title #4

To Search for Music with Alphanumeric Buttons:

1. Press the **Search** button:
 - a.) Once for Title.
 - b.) Twice for Artist.
 - c.) Three times for Album.
 - d.) Four times for Genre.
2. Press the **Alphanumeric buttons** that correspond to the Album, Artist, Genre, Playlist or Song Title, you are searching for.

For example: To find songs by the group U2:

1. Press **Search** twice to search by Artist.
2. Press the **8** button. All Artists that start with TUV will display.
3. Press the **2** button. This will narrow down the search to all Artists with the first letter of TUV and the second letter of ABC or the number 2 in the name.
4. Highlight **U2** and press **Enter**.



Create and Recall Playlists with the List Button

To create playlists:

1. Press the **Menu** button to bring up the **Select Music** screen.
2. Select the Artist, Album, Genre or Playlist menu.
3. Highlight the specified selection you want to play (For example: Album > Album Title).
4. Press **List** and press a **number** to preset the selection. The numbers 00-99 are available for use.
5. Press **Enter**.

To recall a preset playlist:

1. Press **List**.
2. Type in the **number** or browse through the presets displayed with the up and down buttons.
3. Highlight the desired preset and press **Enter**. The preset playlist will then play music from your selection.



Advanced Features

Accessing digital music stored on other computers on the network

To access digital music files stored on another computer on the network you must:

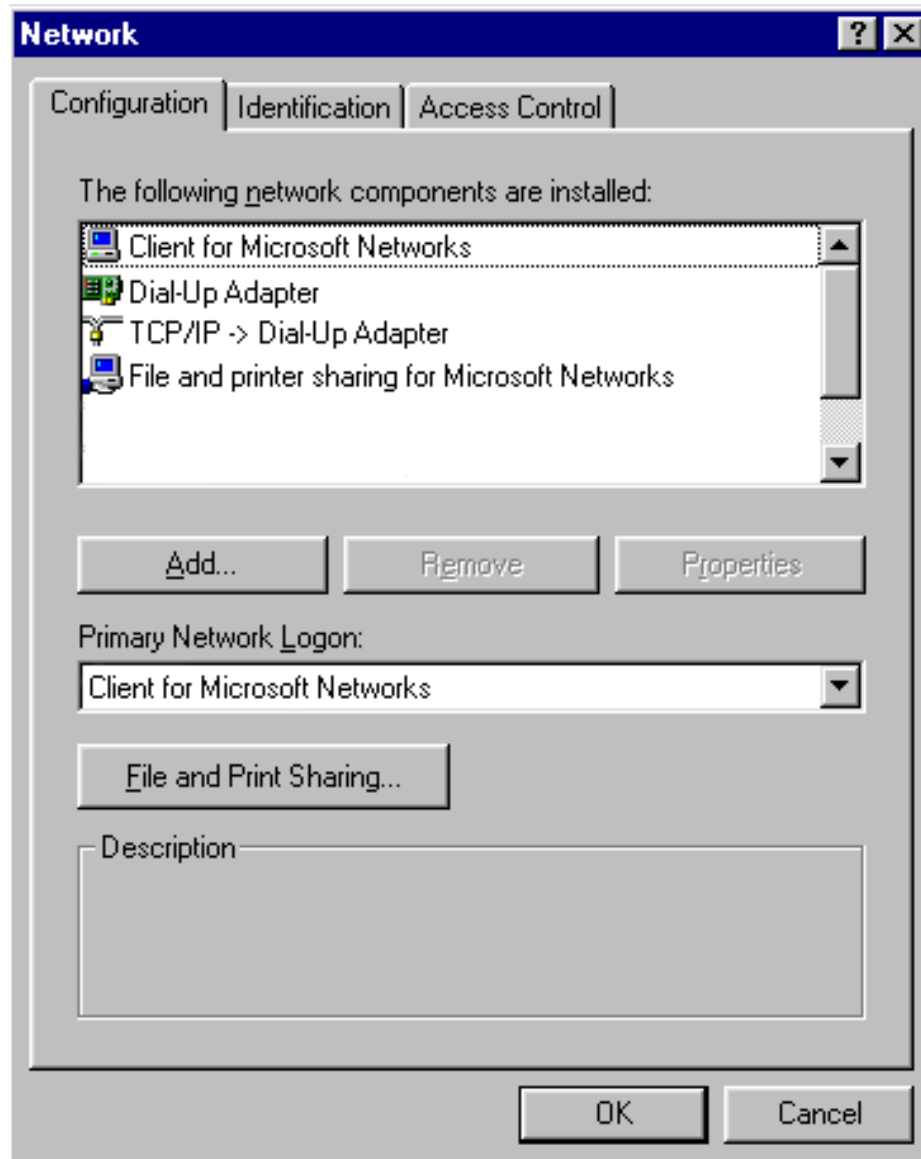
1. Turn on File Sharing.
2. Share the folder where the files are stored.
3. Set up the Audio Receiver Manager to search the other computer's hard drive for digital music files.

NOTE: We recommend that you only store your digital music files on the Receiver's server PC. Playing digital music files located on a computer other than the server PC through the Receiver, can negatively impact the performance of both the PCs and the network. This is because files are activated on the PC where they are located and then streamed through the network to the server PC and then to the Receiver.

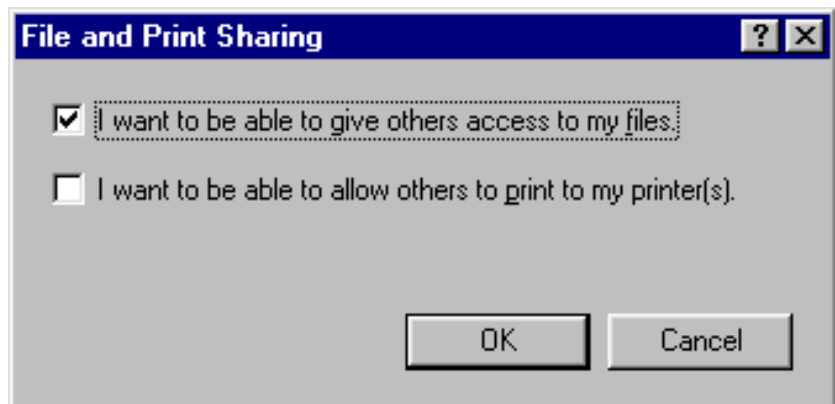
Turning on File Sharing

WARNING: If you own a cable modem or are connected to the Internet via DSL, enabling File Sharing may allow computers outside your network on the Internet to see and access your computer and any files or folders you share. Therefore we recommend that you contact your Internet Service Provider (ISP) or network administrator for assistance in configuring your system to guard against such access.

1. Right click on **Network Neighborhood** and select **Properties**.



2. Click the **File and Print Sharing** button.
3. Put a check mark in the box next to the statement **I want to be able to give others access to my files.** by clicking your mouse in the check box.
4. Click **OK**.
5. That computer is now visible to other computers on your network and to the Rio Receiver.

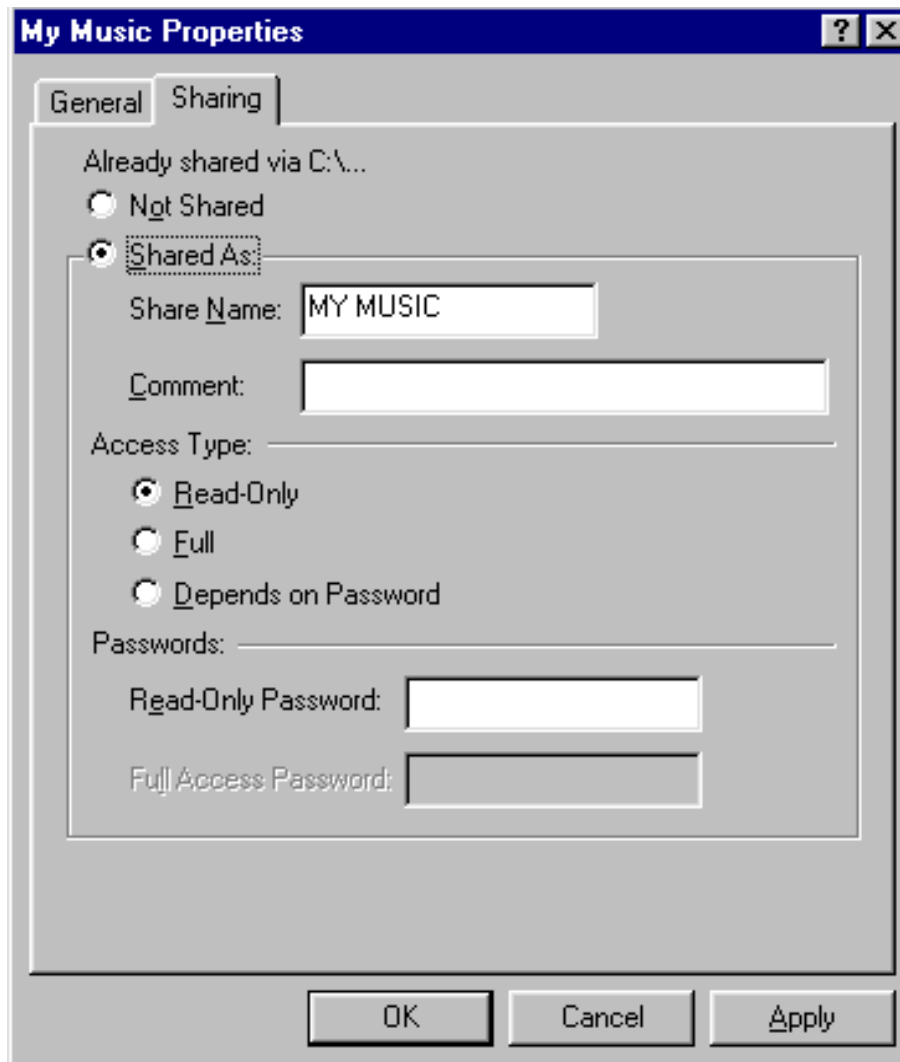




Sharing File Folders

To share a particular folder in which digital music files are stored:

1. Open **Windows Explorer**.
2. Right click on the folder containing the music files you wish to share For example: **My Music**. Select **Sharing**.

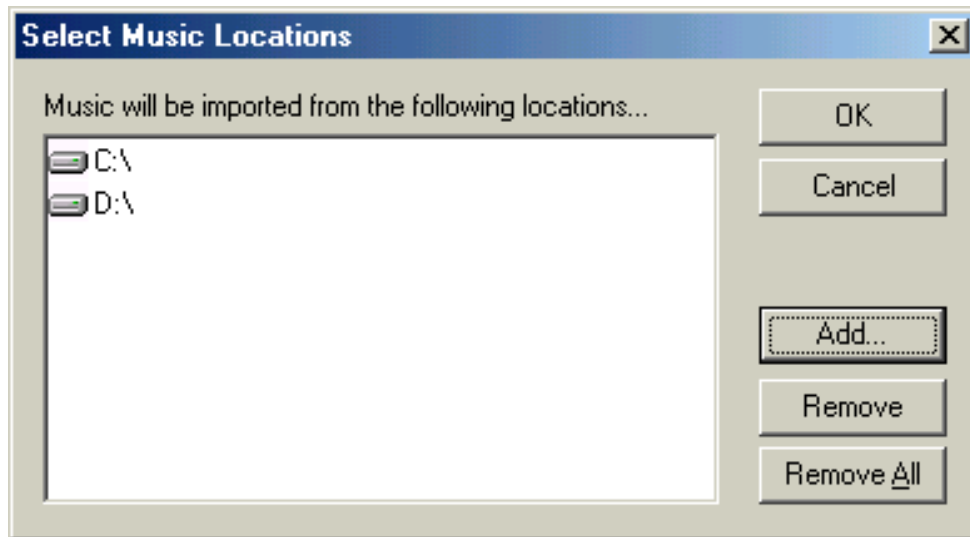


3. On the **My Music Properties** window select **Shared As** by clicking on the empty circle next to it.
4. Select the **Access Type** you wish to give to others.
5. Click the **OK** button to finish. Now the music folder is available to the Rio Receiver and to other computers on the network.

NOTE: You can choose to set passwords for Read-Only or Full Access to control access to this folder or leave them blank so that the folder is available to any other machine on the network. For more information on Sharing files and folders, check **Windows Help**.

Configuring the Audio Receiver Manager to find music on other computers.

1. Right click the Audio Receiver Manager icon on the system tray at the lower right hand side of the screen. A window will pop up with options.
2. Select **Import Music**. This will launch the Audio Receiver Manager software and allow you to manually configure its settings.



3. Click the **Add** button to add hard drives or folder locations to be searched. A Windows Explorer window will pop open, displaying the available hard drives and folders on your server computer as well as **Network Neighborhood**.
4. Click on the **+** sign next to **Network Neighborhood** to display the available computers on the network.
5. Click on the **+** sign next to the computers you want to access for music to display their shared hard drives and folders.
6. Click the hard drive or folder you want to search and click the **OK** button. Your selection will now appear in the **Select Music Locations** folder.
7. Click the **OK** button. The Audio Receiver Manager software will then search those drives and update its music database. When it finishes, the Audio Receiver Manager will display a message stating that it has added new tracks and playlists.
8. Click the **OK** button to exit.

To Remove Search Locations:

1. Right click the Audio Receiver Manager icon on the system tray at the lower right hand side of the screen.
2. Select **Import Music**.
3. Highlight the hard drive or folder you want to eliminate from the search in the **Select Music Locations** window.
4. Click the **Remove** button.
5. Click the **OK** button. The Audio Receiver Manager runs its search and displays a message stating that it has added tracks and playlists.
6. Click the **OK** button to exit.



Configuring the Receiver's LCD

1. Press the **Menu** button on the Rio Receiver or on the remote.
2. Select **Display Settings**.
3. Press the **Volume Select** on the Rio Receiver or the **Enter** button on the remote.
4. On the **Display Settings** screen highlight **Select Layout**.
5. Press the **Volume Select** on the Rio Receiver or the **Enter** button on the remote.
6. On the **Layout** screen choose 1 of 5 different layouts:
 - All Info (default)
 - Remaining Time
 - Scope View
 - Inverse Scope
 - Big Title
7. Press the **Volume Select** on the Receiver or the **Enter** button on the remote.

Menu Options
Select Music About Receiver Change Audio Settings Change Display

Layout
All Info Remaining Time Scope View Inverse Scope Big Title

NOTE: The Rio Receiver will maintain your layout choice as long as it remains plugged into a power source. If unplugged, the Rio Receiver will revert to the default LCD screen.



Troubleshooting Steps

Problem: Rio Receiver can not connect to server.

Troubleshooting measures:

- 1.) Ensure that the Audio Receiver Manager software is loading properly on the server computer. Verify that there is a blue music note icon in the system tray, indicating that the Audio Receiver Manager software has been installed correctly and it sees the Rio Receiver.
- 2.) Verify that the [Audio Receiver manager software is set up properly](#).
- 3.) If you are using firewall software like Zone Alarm, you may need to add the IP Address of the Rio Receiver as a freindly IP Address.
- 4.) Check for the link light on the Rio Receiver, the hub (if you are using one), and/or the Ethernet card.
- 5.) Check to make sure you have the cables plugged in correctly.
- 6.) After checking the connections and that the software is running, restart (unplug and replug) the Rio Receiver and allow it to search for the server again.
- 7.) If the Receiver still does not find the server, try connecting the Rio Receiver directly into the network card on one system to rule out any issues with wiring.

NOTE: If directly connecting an Ethernet card to the Rio Receiver, you may need to use an Ethernet crossover cable.

Problem: The Rio Receiver reports an error on the display.

Troubleshooting measures:

Errors that are reported on the Rio Receiver display are typically indicative of server connection issues.

- 1.) When an error is received, power down the Receiver.
 - 2.) On the server computer double click the **Audio Receiver Manager icon** (music note icon in system tray).
 - 3.) Click **Tools** and **Import Music**.
 - 4.) Click **Add** and specify the location of the music files you wish to use with the folder browser that appears.
 - 5.) Click **OK**. The software will import your music tracks.
 - 6.) Click **OK** when it is finished.
 - 7.) Restart your Rio Receiver and let it redetect the server.
- This should resolve the issue that inspired the error message.



Problem: The Volume Select on the Rio Receiver doesn't work.

Troubleshooting measures:

- The **Volume Select** on the Rio Receiver will only function when bare wire speakers are connected directly to the device. This uses an amplified signal and allows you to change the volume levels from the Rio Receiver.
- To change the volume levels on speakers connected via the other outputs on the Rio Receiver, you will need to adjust the volume on the powered speakers (1/8" LINE OUT jack) or on the connected Stereo Receiver (RCA OUT Jacks).

Problem: Selected WMA tracks aren't being added to the playlist.

Troubleshooting measures:

WMA files can have built-in file protection. This allows distributors to add features such as expiration dates to downloaded tracks. If one or more WMA tracks are not added correctly when you Import Music, this is most likely caused by a limitation of the file that was added by the distributor. If your WMA files are protected, you will not be able to play them on your Rio Receiver.

Problem: When selecting Next Track on the device, it does not advance to the next track and playback is stopped/paused.

Troubleshooting measures:

This happens when you have reached the end of a selected playlist. There are several causes for this that can appear as a premature interruption of music playback.

- When you navigate the Rio Receiver's menu and choose **Select Music**, there are a variety of options. To choose an extended playlist, choose the **Play All Music** selection from whatever menu option you choose (Album, Artist, and so on.)
- When you are unable to use **Next Track** without having the player stop, this usually is caused by only choosing a single track to play. If you choose **Title** from the **Select Music** menu option and only choose one song, that will be the only track in the playlist. You will need to select **Play All Music** to navigate through the tracks using **Forward** and **Reverse**.

Problem: I can't verify if the server computer is connected to the Rio Receiver.

Troubleshooting measures:

- 1.) Check the Rio Receiver display to see if it detects and is connecting to the server. Try to navigate the menu on the Rio Receiver and select songs.
- 2.) Double click the **Audio Receiver Manager icon** (music note in the System Tray).
If the musical note is blue, it is communicating with the Rio Receiver. There should be a Rio Receiver icon present in the display window that resembles a Rio Receiver device.
- 3.) If the Rio Receiver icon is active (full outline and sharper colors) the server computer has successfully connected to the Rio Receiver. If the icon is grayed out (no icon outline and faded colors) or if no icon is present, the server computer is unable to communicate with the Rio Receiver. Check network connections and power the Rio Receiver off and on.



Problem: Title track and time counter are too small to see or difficult to read.

Troubleshooting measures:

The display settings can be modified to suit your preferences.

- 1.) Click **Menu**.
- 2.) Click **Change Display**.
- 3.) Click **Select Layout**.

There are a variety of display features. Choosing **Big Title** from this menu option will increase the font of the information display.

You can also choose **Adjust Contrast** on the **Display Settings** menu. Depending on the lighting in your room, adjusting the contrast from this menu option can make the display easier to read.

Problem: I am unable to get the Receiver working with a 10/100 Ethernet connection.

Troubleshooting measures:

- 1.) The Rio Receiver connects using a 10 Mb Ethernet port. It is recommended that you use 10 Mb network adapters and equipment with the Rio Receiver. If you are using a 10/100 Mb network device and are having problems connecting to your Rio Receiver, you may need to set your connection speed to 10 Mb.
- 2.) Go to **Start > Settings > Control Panel**.
- 3.) Double click **Network Properties**.
- 4.) Highlight the 10/100 Mb network device under the **Network Component** listing and choose **Properties**.
- 5.) Click the **Advanced** tab in the box labeled **Property**.
- 6.) Choose **Media Type**.
- 7.) Using the drop down menu for **Value** choose **10 Mbps Half Duplex**. (The default value for this field will be **hardware default**)
- 8.) **Apply** these settings and reboot when prompted.
- 9.) Retry your Rio Receiver connection.

Problem: I don't know if the Audio Receiver Manager software is setup properly.

Troubleshooting measures:

- 1.) Verify that there's a musical note icon in the system tray. This is the Audio Receiver Manager icon. It is blue when communicating with the Rio Receiver and red when not communicating properly.
- 2.) Double-click on the **Audio Receiver manager icon** in the system tray.
When the Rio Receiver is powered on, there will be a Rio Receiver icon in the display window that resembles a Rio Receiver device. If this icon is active (full outline and sharper colors), the server computer has successfully connected to the Rio Receiver. If the icon is grayed out (no icon outline and faded colors), or if no icon is present, the server computer is unable to communicate with the Rio Receiver.
- 3.) Select the **Rio Receiver**, and go to the **Unit** menu. Verify that **Server music to this unit** is checked.
- 4.) Go to the **Tools** menu and select **IP Configuration**.



- 5.) At the top of the window select the **Rio Connector** card or your third party **HPNA** or **Ethernet** card that the Audio Receiver Manager software will be serving music over.
- 6.) Verify that **Make music available on this adapter** is checked.
- 7.) If you have not already done so, go to **Tools** and select **Import Music**. Follow the prompts to import your music.

Problem: I've installed the Audio Receiver Manager software, but there's no musical note icon in the system tray.

Troubleshooting measures:

If there's no musical note icon in the system tray, then the Audio Receiver Manager software is not running. Click **Start > Programs > Startup** to check your **Startup** items for the Audio Receiver Manager software. The software installer may not have added itself to your list of Startup items. Try launching the software manually by clicking **Start > Programs > Audio Receiver**.

If an attempt to launch the Audio Receiver Manager software manually fails, try the following:

- 1.) Verify that the **Rio Connector card**, your third party **HPNA** or your **Ethernet** card is listed in the **Start > Settings > Control Panel > Network**. If there are no network adapters installed, the Audio Receiver Manager software will not start.
- 2.) If you are using Windows Millennium, verify that the [Media Sense](#) feature is disabled.
- 3.) Verify that the [drivers](#) for the Rio Connector card, your third party HPNA or your Ethernet card are installed properly. If any files were skipped during the driver installation, that might cause the Audio Receiver Manager software to fail to launch.
- 4.) Verify that the [IP Address](#) of the Rio Connector card, your third party HPNA or your Ethernet card is not all zeros (0.0.0.0). If the IP address of the adapter is all zeros, then the Audio Receiver Manager software will not start. To resolve this problem, you may need to specify an IP address for that adapter. Please consult **Windows Help** for complete step-by-step instructions on specifying a private IP address.

Problem: The Audio Receiver Manager software says, "No network adapters were detected on this computer. This software requires at least one network adapter to work."

Troubleshooting measures:

There are two possible causes for this error. In both cases, the solution is to reinstall the drivers for the Rio Connector card or your third party HPNA or Ethernet card.

You may encounter this error if the [drivers](#) for the Rio Connector card your third party HPNA or your Ethernet card are not installed. You can verify this by checking the Device Manager under Network adapters and the Network Control Panel.

You may also encounter this error if TCP/IP is not installed for the Rio Connector card, your third party HPNA or your Ethernet card. This can occur if driver installation didn't complete successfully.

Also if you're using Windows 98, there's a limit of 6 instances of TCP/IP in the Network Control Panel. If there were already 6 adapters in the Network Control Panel, then TCP/IP would not install successfully for the Rio Connector card, your third party HPNA card or your Ethernet card.



Problem: How do I disable Media Sense in Windows Millennium?

Troubleshooting measures:

- 1.) Click **Start > Settings > Control Panel**.
- 2.) Double-click **Network**.
- 3.) Click the copy of **TCP/IP** that is bound to the network adapter you want to configure. For example:
TCP/IP: Rio Connector.
- 4.) Click the **IP Address** tab and clear the **Detect connection to network media box** by clicking on it.
- 5.) Click **OK** twice and **Restart** your computer.

Problem: How do I tell what IP Address the Rio Receiver is using?

Troubleshooting measures:

On the Rio Receiver:

- 1.) Go to the **Rio Receiver Menu** and select **About Receiver**.
- 2.) Press the **Volume/Select knob** to enter your selection.

The Rio Receiver software and license information will scroll by followed by the Server IP and the Local IP.
The Local IP is the IP Address for the Rio Receiver.

On the music server:

- 1.) Double-click the **musical note icon** in the system tray.
- 2.) Go to the **View** menu and select **Details**.

The hardware address and IP Address will be listed to the right of the Rio Receiver in the display window.

Problem: How do I verify the drivers for the Rio Connector, HPNA card or Ethernet card were installed properly?

Troubleshooting measures:

- 1.) Click **Start > Settings > Control Panel**.
- 2.) Double-click **Network**.
- 3.) The following components should be present:
Rio Connector Card
TCP/IP > Rio Connector Card

NOTE: If you are not using the Rio Connector Card, substitute the name of the HPNA or Ethernet card you are using. If the Rio Connector Card is the only adapter installed in the Network Control Panel, TCP/IP will be listed by itself without a link to the adapter.

- 4.) If there are duplicates of the components listed above, remove them both and reinstall the drivers.
- 5.) Click **Start > Settings > Control Panel**.
- 6.) Double-click **System**.
- 7.) Click **Device Manager**.
- 8.) Click the **+** symbol next to **Network Adapters**.
The Rio Connector Card, your third part HPNA card or your Ethernet card should be listed here.



Problem: How do I verify the IP Address in Windows 9x on the music server is valid?

Troubleshooting measures:

- 1.) Click **Start > Run** and type in **WINIPCFG**.
- 2.) Click **OK**.
- 3.) From the pulldown menu, select the **Rio Connector, your third party HPNA card or your Ethernet card**.

The IP Address shown should be of the form: **169.254.x.y**, where x and y can be any number from 2 to 254.

NOTE: If your computer is part of a network, its IP Address should be identical to the other computers on the network with the exception of the last number.

- 4.) If the IP Address does not appear like the example given above, follow the directions below to manually set the IP Address.

Problem: How do I manually set the IP Address on the music server?

Troubleshooting measures:

- 1.) Click **Start > Settings > Control Panel**.
- 2.) Double-click **Network**.
- 3.) Click the **TCP/IP** component installed for the Rio Connector your third part HPNA card or your Ethernet card.

NOTE: If there is only one Network Adapter installed, there will be only one instance of TCP/IP.

- 4.) Click **Properties**.
- 5.) On the **IP Address** tab, click **Specify an IP Address**.
- 6.) In the **IP Address** box, type **192.168.0.x** (where x is a number between 2 and 254).

NOTE: the IP Address should be one that is not currently in use by another computer on your network. If your music server is already part of a network, substitute your network's IP range for the one suggested above. If you are using Windows Me, uncheck the Detect connect to network media box.

- 7.) In the **Subnet Mask** box, type **255.255.255.0**.
- 8.) Click **OK** twice, then click **Yes** when prompted to restart your computer.

Problem: The Rio Receiver software is not operating because of an incompatible DLL file. What should I do?

Troubleshooting Measures:

When Microsoft shipped its initial release of Internet Explorer 5.0, it came with a file that had an internal bug. Subsequent Releases of Internet Explorer (5.01, 5.5, etc) provide an older file that works correctly. Microsoft's recommended solution is as follows:

- 1.) From the **Start** menu, point to **Settings**, click **Control Panel**, and then double-click **Add/Remove Programs**.
- 2.) Click **Microsoft Internet Explorer 5** and **Internet Tools**.



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- 3.) Click **Add/Remove** to remove and restore the original Internet Explorer settings.
- 4.) Restart the computer.
- 5.) Install **Internet Explorer 5.01**, **Internet Explorer 5.01 Service Pack 1**, or **Internet Explorer 5.5**.
- 6.) For the more savvy computer user, it is possible to install the correct file directly from the shipping Windows Operating System software without re-installing Internet Explorer. The necessary file is named IPHLPAPI.DLL (v5.0.1717.2). It can be found in the following cab file: NET7.CAB Simply extract this file directly to the Rio Audio Receiver software directory. Then start the Audio Manager software.



Frequently Asked Questions

How do I encode, "rip", the music off my CDs so I can listen to them on my Receiver?

There are many encoder programs available on the Web, many of which are free. For example you can go to www.musicmatch.com, www.real.com or www.rioport.com and download the programs that they offer to encode or rip CDs. They include instructions on how to install and use their software, including encoding MP3s, creating and managing playlists, and downloading digital music files from their websites.

NOTE: We encourage you to respect the rights of music artists. Please make sure that you enjoy legally obtained music.

Where can I find digital music files on the Internet?

There are many websites that offer legal copies of digital music for downloading. For example: www.musicmatch.com, www.real.com or www.rioport.com. To download your favorite tunes from the Internet, go to your favorite digital music website.

- 1.) Select the category of music you prefer.
- 2.) Browse through the provided track lists by artist or title, depending on the website.
- 3.) Select the music file you wish to download. Price of the download, artist information, and file size may be included with the song track's name, but if not, clicking on the music file should produce this information.
- 4.) Click **Download**.
- 5.) When the **File Download** screen appears, select **Save this program to disk** and click **OK**.
- 6.) When the **Save As** screen appears, select the destination folder on your hard drive and click **OK**. The music file will then be saved to your hard drive for future use by the Rio Receiver.

How do I create playlists?

- Jukebox programs like those available at www.musicmatch.com, or www.real.com provide step-by-step instructions on how to configure digital music files into playlists. Each program accomplishes this task a little differently, so be sure to read their instructions located under the **Help** menu. For example: RioPort Audio Manager has a **Playlist** button for creating and editing playlists, while Real Jukebox maintains playlists within its **Music Library**.
- See the [Create and Recall Playlists with the List Button](#) section of the manual for instructions on how to use your remote to create music playlists on the fly.

Can I store music on my Rio Receiver?

No. The Rio Receiver streams music from your PC over standard phone lines. All music is stored on the server computer. The Rio Receiver allows you to choose your music from locations on the server computer that you specify.



Can I install the Audio Receiver Manager program on several computers on my home network?

No. The Audio Receiver Manager can only run on one computer at a time. While it is possible to change the server computer in the home, it is not recommended to operate multiple instances of the Audio Receiver Manager on one network.

Can I stream music from other machines in the house?

Yes. You may enable file sharing on the machines in your home network and share music folders you wish to play. You can then add these folders by choosing **Import Music** from the Audio Receiver Manager program and specifying the network folder from which you wish to play your music.

WARNING: If you are connected to the Internet, sharing folders may give others outside of your home access to your files. Please check with your ISP or Internet sharing application software on how to protect your files from outside access.

Why do files that have low bit rates play poorly on my Rio Receiver?

Low bit rates (16-24 KB) are not recommended for encoding music to be played on the Rio Receiver because in order to encode the music so low, much of the music data is lost to the encoded file. For example: If a song has 16 levels of information available in a 128KB file, it will only have 1 or 2 of those same levels in a 16-24 KB file. Therefore the sound quality is poorer.

Sometimes I experience skipping music or brief delays in menu response. What causes this?

When the server computer is sending music to your Rio Receiver, both the server computer and your network connection are using available resources. If the server computer or network connection is in heavy use (gaming, software installation, etc.) skipping music or delayed response times may occur. To reduce the likelihood of this happening, try to avoid heavy use of the server computer while listening to your Rio Receiver.

My Rio Receiver stops playing music if I turn off my computer. What should I do?

The music server is constantly streaming data to the Rio Receiver, where it is buffered and used as needed. The Rio Receiver only stores a few seconds of music before it needs more. If you turn off your computer, the Rio Receiver will run out of music to play and stop. When the music server is turned back on, it is necessary to turn off and on the Rio Receiver to synchronize it with the music server. This is required because the music server may change its network parameter when it reboots.

What kind of speakers can I use with my Rio Receiver?

The Rio Receiver has several speaker connections to give you more options for use with your favorite speaker system. You can:



Frequently Asked Questions

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- Connect your Rio Receiver to a home stereo system using the red and white RCA OUT jacks provided. This will allow you to integrate your Rio Receiver into your home entertainment system.
- Use the spring clips, which are powered outputs, for bare wire bookshelf speakers. The Rio Receiver outputs 10 watts per channel. It is recommended that you choose speakers that have an operating range that include 10 W.
- Use any powered set of speakers using the 1/8" LINE OUT jack provided on the back of your Rio Receiver.

There is a 1/8" stereo jack labeled LINE OUT on the back of my Rio Receiver, what is this for?

This is a line output for powered speakers. You can connect powered computer speakers to the back of your Rio Receiver. This may be especially useful if you are placing the device in a smaller room without access to a stereo receiver or bare wire speakers.

Will the Rio Receiver interfere with my telephone service?

No. While the Rio Receiver uses standard telephone lines to communicate with the host computer, it operates on a separate frequency from your telephone or modem. You can use your telephone line without interference from your Rio Receiver. Subsequently both devices will function properly without interfering with the other.

Why do some songs show multiple entries when I try to select my music on the Rio Receiver?

This can be caused by several reasons.

- The most common reason for this is if a song is present in multiple folders on the server computer and more than one of these folders is selected when importing music. The track will show up multiple times.
- This can also be caused by having the same track present in both .wma and .mp3 format on the server computer. This can be avoided by storing only one instance of each track, in any form, in folders that are imported to your Rio Receiver.

I receive an error message on the Rio Receiver display, what does this mean?

Error messages that appear on the display of the Rio Receiver typically indicate a communication problem between the Audio Receiver Manager software on the server computer and the Rio Receiver.

- 1.) Shut down the Rio Receiver and restart the Audio Receiver Manager software on the server computer.
- 2.) Once the software has reloaded on the server computer, restart the Rio Receiver. The receiver should redetect the server and this should remedy the error message.

Will the Rio Receiver work with any Home PNA network adapter?

Yes. The Rio Receiver is based on Home PNA specification 2.0. This ensures maximum compatibility with Home PNA 1.0 and 2.0 network devices. Your Rio Receiver should work with existing Home PNA network configurations.



Will the Rio Receiver work with 10 Base-T Ethernet network adapters?

Yes. The Rio Receiver supports a 10 Mb Ethernet connector. You can connect your Rio Receiver to an Ethernet hub with standard Category 5 network cable or directly to a host PC using an Ethernet crossover cable.

When I change my Display Settings or Contrast on the Rio Receiver, they are not always saved. Why?

Currently the **Display** and **Contrast** settings will remain the way you configure them until you power off the Rio Receiver. If the Rio Receiver is left on, your custom settings will remain in tact.

Is there any way to make the font of the song title and track time larger?

Yes.

- 1.) Press **Menu**.
- 2.) Highlight **Change Display** and press the **Volume Select**.
- 3.) Highlight **Select Layout** and press the **Volume Select**.
- 4.) Highlight **Big Title** for a larger track time and title and press the **Volume Select**.

The light on my Rio Receiver goes out after a period of time, why is this?

The light on the display is meant to assist you when you are making menu selections. It will activate when you choose menu selections. After you finish making selections, the light will go out. This is to ensure a longer life for your Rio Receiver display.

How does the Rio Receiver know what the album and song title are?

This information is retrieved from the ID3 tag portion of the MP3 file information. The ID3 tag contains all of the track information. If you encode your own MP3 files from existing CD music, be sure to use a 'CDDb' (online CD music title data base) feature for the most accurate track information when using your Rio Receiver.

When I disconnect the Rio Receiver or shut down the Audio Receiver Manager program, the music continues to play for a short time. Why?

The Rio Receiver stores a small portion of the song being played (15-30 seconds) to help eliminate any interruption in your music playback. When the server computer is stopped or a connection is broken, the Rio Receiver will continue to play the current song until this stored portion of the song is played.

Why does my Scandisk program keep restarting when I use the Rio Receiver?

When you want to run Scandisk on your computer, exit the Audio Receiver Manager program and turn off the Rio Receiver. Otherwise, the Rio Receiver will continue to access the computer's hard drive for songs and Scandisk will restart its process from the beginning.



When playing an MP3 file that was encoded using Variable Bit Rate on the Rio Receiver, the rate shows as being “A Fixed Rate”. Why?

Depending on the encoding method for your Variable Bit Rate (VBR) music files, the displayed bit rate may vary. It may show as 32 kb/s or as a fixed average of the bit rate for the selected track.

Why is it that when I try to adjust the volume on the Rio Receiver, the slider moves but the volume does not change?

The volume on the receiver will only affect the volume of speakers connected to the 'bare wire' speaker outputs. If you have speakers connected to the 1/8" stereo jack or the RCA outputs, the volume will be controlled on the powered speakers you are using or the stereo receiver component that you have connected to your Rio Receiver. 'Bare wire' connections are powered, but the other jacks are line outputs for increased audio clarity.

Can I add a new folder to the existing folders that I have previously imported?

Yes, however if you want the Rio Receiver to reflect the changes you have made to your music folders or playlists, you will need to import your music again after the changes have been made.

Why does music in folders I do not select occasionally appear on my Rio Receiver menu display?

The Audio Receiver Manager software scans for databases of common encoding software like Real Jukebox and MusicMatch in addition to the folders you specify. Any songs found in the MusicMatch playlists or the Real Jukebox music database files are added to the Rio Receiver's database.

Why do the speakers continue to play music when I plug my headphones into the front of the Rio Receiver?

Plugging the headphones into the front headphone jack, will not stop playback to the speakers. If you are using speakers connected via the **LINE OUT** or **RCA OUT** connections, you can turn the volume down on the speaker amplifier and then adjust the volume on your Rio Receiver for your headphones. This will effectively mute the speakers, yet provide full volume support for your headphones.

Can I use both HPNA and Ethernet to connect my Rio Receiver?

The Rio Receiver can only operate in communication with a single server computer. Because of this, you should never need to connect both HPNA and Ethernet cables to your Rio Receiver. You will use one or the other.

If I connect multiple Rio Receivers to the same server computer, will they play the same music?

They will have access to exactly the same music files, but it is not required to play the same songs on each device at the same time. You can play different tracks on each Rio Receiver using the same playlists.



Rio Receiver Specifications

Line out:

RL = 10k

- Max. Output Level (1kHz, digital full scale): + 6 dBV (600 Ohms)
- Frequency response: 20Hz to 20kHz ± 0.1 dB
- THD (1kHz, -3dBm): 0.005%
- THD (10kHz, -3dBm): 0.003%

Headphone out:

RL = 600R

- Output Level (1kHz, 1% THD): 1.6Vrms typ.
- Frequency response: 40Hz-20kHz ± 0.1 dB
20Hz-20kHz ± 0.1 dB, -0.8dB
- THD (1kHz, -10dBm): 0.01%
- THD (10kHz, -10dBm): 0.05%

RL = 16R

- Output Level (1kHz, 1% THD): 0.43Vrms typ.
- Frequency response: 100Hz-20kHz ± 0.1 dB
20Hz-20kHz ± 0.1 dB, -3.3dB
- THD (1kHz, -12dBm): 0.02%
- THD (10kHz, -12dBm): 0.08%

Channel Crosstalk (1kHz) better than -75dB

Power amp out:

RL = 8 R

- Max. Output Power (1kHz, 10 % THD): 2 x 10W
- Nominal Output power: (1kHz, 0.3 % THD) 2 x 8W
- Frequency response: 20Hz - 20kHz ± 0.5 dB, -1.8dB
- THD (1kHz, 1W): 0.13%

RL = 4 R

- Max. Output Power (1kHz, 10% THD): 2 x 15W
- EIAJ Power * 2 x 25W
- Nominal Output power: (1kHz, 0.3 % THD) 9W
- Frequency response: 20Hz - 20kHz ± 0.5 dB, -1.8dB
- THD (1kHz, 1W): 0.2%

*saturated square wave output

Channel Crosstalk (1kHz): better than -74dB



Rio Receiver Specifications

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General Specifications:

Manufacturer: SONICblue

Model: Digital Audio Receiver

Physical

Width: 9" (228mm)

Depth: 9" (228mm)

Height: 3" (76mm)

Weight 3lbs 7oz (1.67kg)

Power

Voltage: 100-240, 50/60Hz, 1.2A ~



One Year Limited Warranty

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One Year Limited Warranty

Our warranty to you:

SONICblue, Incorporated warrants that your product will be free from defects in materials and workmanship for a period of one year from the date of original retail purchase. If you discover a defect covered by this warranty, we will repair or replace the product at our option using new or remanufactured components. SONICblue's liability is limited solely to the repair or replacement of the defective product. This warranty is extended to the original end user purchaser only and is not assignable or transferable to any other party. Any parts or boards removed in the replacement or remanufacture process shall become the property of SONICblue.

How to obtain service under this warranty:

To obtain service under this warranty, please contact the dealer from whom you purchased this product or SONICblue's Customer Care Center at (541) 967-2450 for return instructions.

The Customer Care hours of operation are:

Monday through Thursday, 5 am to 7 pm, PST

Friday, 5 am to 11 am and 1 pm to 7 pm, PST

Saturday 8 am to 4 pm, PST.

You must deliver the product and the original sale receipt to the dealer from whom you purchased this product or to SONICblue in order to obtain service under this warranty. If you return the product to SONICblue, you must pay for shipping to SONICblue. Our mailing address is:

SONICblue, Inc.

Communications Division

7101 Supra Drive SW

Albany, OR 97321 USA

Product failures not covered by this warranty:

This warranty covers defects in manufacture that arise from correct use of the device. It does not cover damage caused by abuse, misuse, improper modification or repair, moisture, extreme heat or cold, corrosive environments, shipping, or high voltage surges from external sources such as power line, telephone line, or connected equipment. This warranty does not cover wear and tear on covers, housing or wiring. This warranty also does not apply to any product with an altered or defaced serial number.

Limits of liability:

We are only responsible for the repair of this product. We will not be liable to you or anyone else for any damages that result from the failure of this product or from the breach of any express or implied warranties. These include damage to other equipment, lost data, lost profits, or any consequential, incidental, or punitive damages. IN NO EVENT WILL SONICblue BE LIABLE FOR ANY AMOUNT GREATER THAN THE CURRENTLY SUGGESTED RETAIL PRICE OF THIS PRODUCT.

THIS WRITTEN WARRANTY REPRESENTS THE ENTIRE WARRANTY AGREEMENT BETWEEN SONICblue AND YOU. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY IS LIMITED TO THE TERM SPECIFIED ABOVE. NO WARRANTIES, EITHER EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD. THIS WARRANTY



One Year Limited Warranty

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MAY NOT BE ALTERED IN ANY WAY OTHER THAN IN WRITING BY AN OFFICER OF SONICblue. This warranty gives you specific legal rights and you may also have other rights, which vary, from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.



Regulatory Information

Federal Communications Commission (FCC)

The adapter has been tested and found to comply with limits for a Class B computing device according to the specifications in FCC rules Part 15 and Part 68. Operation is subject to the following two conditions:

- 1.) This device may not cause harmful interference, and
- 2.) This device must accept any interference received, including interference that may cause undesired operation.

As an owner /operator of a registered adapter like this adapter, you must comply with FCC rules:

- Before installing your adapter, you must notify your telephone company that you are going to install an FCC registered device. When you contact them, you must provide the FCC registration number and ringer equivalence number (REN) for your adapter; these numbers are located on the adapter's FCC label.

NOTE: The Ring Equivalence Number (REN) assigned to each terminal device denotes an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

- You cannot connect the adapter to a party line or to a coin telephone line.
- You must only connect your adapter to a standard modular telephone jack, type RJ-11.

If your adapter needs repairs, you must arrange for the manufacturer to make them if you are to keep the adapter's FCC registration valid.

If you need to return the product, contact our Customer Care Department to obtain a Return Merchandise Authorization (RMA) number from Technical Support (541-967-2450).

Our mailing address is:

SONICblue, Inc.
7101 Supra Drive SW
Albany OR 97321 USA

This equipment, like other electronic equipment, generates and uses radio frequency energy. If not installed and used according to the instructions in this manual, this equipment may cause interference with your radio and television reception.

If you think this equipment is causing interference with your radio or television reception, try turning the equipment off and on. If the interference problems stop when the equipment is switched off, then the equipment is probably causing the interference. You may be able to correct the problem by doing one or more of the following:

- Adjust the position of the radio or TV antenna.
- Move the adapter away from the radio or TV.
- Plug the adapter in a different outlet than the radio/TV uses.



If necessary, consult your dealer or an experienced radio or television technician. You may find this booklet helpful: "How to Identify and Resolve Radio and TV Interference Problems" (Stock No. 004-000-00345-4), prepared by the FCC and available from the U.S. Government Printing Office, Washington, DC 20402. See individual adapters for FCC ID and registration numbers.

Industry Canada (IC)

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

NOTE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operation and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections, but should contact the appropriate electric inspection authority, or electrician, as appropriate. If necessary, consult your dealer or an experienced radio or television technician.



Glossary

AAC

Advanced Audio Coding (AAC) is one of the audio compression formats defined by the MPEG-2 specification. AAC used to be called NBC (Non-Backward-Compatible), because it is not compatible with the MPEG-1 audio formats. AAC may eventually replace MP3 since it offers better sound quality and greater file compression.

Bit Rate, file compression

Bit rate denotes the average number of bits that one second of audio data will consume. The size of a digital audio file is determined by the bit rate used when encoding the file. The higher the bit rate used, the higher the sound quality and the larger the file size. For example, a bit rate of 128k is usually very close to CD quality, and takes up about 1MB per minute of music. At a 64k bit rate, the sound quality is similar to that of an FM radio

DRM, security

Digital Rights Management (DRM) technologies protect copyright ownership of digital information. DRM became an issue with the rise of MP3 technology and Internet distribution of music. DRM platforms serve as a security "wrapper" around digital audio supporting Internet distribution while at the same time protecting and managing rights related to that digital information.

Codec

Depending on the context and kind of technology involved, codec may be defined in two ways.

In telecommunications, a codec is usually a "coding/decoding" chip used to translate between digital and analog transmissions. A modem uses one to interpret incoming analog signals and converts the digital data stream coming from the computer into analog.

A codec is also defined as a compression/decompression algorithm. Codecs are used to shrink large files or data streams, often for efficient transmission over a network, and then decode them when they are displayed. The Rio Digital Audio Receiver supports the following digital audio file codecs:

- MP3
- WMA

Encode, "Rip" (a CD)

Encoding, or "ripping", refers to converting an audio file from a CD-ROM into a compressed digital audio format, such as MP3 or WMA, that may be played on the Rio Receiver, on the computer, or on a portable Rio Digital Audio Player.

Ethernet Network

A common method of networking computers in a LAN. Ethernet will handle approximately 10 million bits-per-second and can be used with almost any kind of computer. Requires the use of a hub and Ethernet cable. signal, but you may get around two minutes of music in that same 1MB of storage space.



Gracenote

Gracenote, formerly known as CD Database (CDDb), is an vast database of CD information that includes disc name, song titles and other information. Gracenote supports hundreds of different third party software CD players. Access to the Gracenote service is offered free of charge to end-users. Visit the [Gracenote website](#) for more information.

Home PNA Network

Enables two or more Windows or Macintosh computers, located in your home or small office, to communicate through your existing phone lines using standard phone cords.

ID3 Tag

This is the part of the encoded MP3 file that contains information about the digital music file such as song title, artist, album title, bitrate encoding, time duration of track, and so on.

MP3

MPEG-1, Layer 3 Audio (MP3) is a compressed digital audio file format. This format allows for near CD quality sound, but at a fraction of the size of normal audio files. MP3 files encoded from CD-ROM may be compressed to under 10 percent of their former size. This digital sound encoding and compression process was developed by the Fraunhofer Institut für Integrierte Schaltungen and Thomson Multimedia. MP3 uses perceptual audio coding and psychoacoustic compression to remove all superfluous information—more specifically, the redundant and irrelevant parts of a sound signal that the human ear doesn't hear. It also adds a Modified Discrete Cosine Transform (MDCT) that implements a filter bank, increasing the frequency resolution 18 times higher than that of layer 2. MP3 shrinks the original sound data from a CD-ROM with a bitrate of 1411.2 kilobits per one second of stereo music by a factor of 12 down to 112-128kbps, without sacrificing sound quality. The MP3 encoding process is well suited for the transfer of high quality audio files with small file size over telephone or ISDN lines, and over the Internet.

PCI Slot - Peripheral Component Interface

A 32-bit slot found in Pentium Class systems. Generally used by IDE/SCSI controllers, video cards, network cards, video capture boards, and some sound cards.



SDMI

The Secure Digital Music Initiative (SDMI) is a forum of over 130 companies in the fields of recorded audio content, computers, and consumer electronics, for the purpose of developing an integrated method of copyright protection technology that can be used worldwide. SDMI is working to create a framework for preventing improper usage of audio files and to promote legal music distribution services.



WMA

Windows Media Audio (WMA) is the compressed audio format that Microsoft is positioning as a replacement for MP3. WMA may replace MP3 since it offers greater file compression—twice that of MP3—at the same or better sound quality.



Contacting Customer Care

Technical Support - US	Customer Service - US
<p>Hours of Operation: Mon.-Thurs. 5am-7pm PT Fri. 5am-11am 1pm-7pm PT Sat. 8am-4pm PT Email customersupport@riohome.com Telephone 1(541)-967-2450</p> <p>Fax 1(541)967-2401 TDD 1(541)967-2451</p>	<p>Hours of Operation: Mon.-Thurs. 6am-5pm PT Fri. 6am-11am 1pm-5pm PT</p> <p>Email customersupport@riohome.com Telephone 1(800)-468-5846 1(541)-967-2450 Fax 1(541)967-2485</p>
<p>Technical Support Wizard www.riohome.com</p>	<p>Website www.riohome.com</p>

Rio Product Support

With every Rio product you receive the following support services:

- Unlimited access to the Rio web-based technical information resources, which are available 24 hours a day every day at www.riohome.com . Here you will find up-to-date FAQ files, a knowledgebase search engine, product updates and other useful tools.
- Unlimited email support for the duration of your Rio product hardware warranty period.
- Access to the latest software updates and enhancements for Rio product via our web site.

New Product Support

In addition to the services mentioned above, all retail purchasers of Rio products receive:

- Person-to-person telephone support for the first 90 days of ownership.

To extend support after the expiration of New Product Support, we offer an affordable, fee-based, Extended Service Option. Please see web site for details, at www.riohome.com .